

Docket No.: 2000 P 07658 US
App. No.: 09/586,557
Petition

In re Application of: Skrzynski

Serial No: 09/586,557
Filing Date: May 31, 2000

For: HIERARCHICAL
DEPENDABILITY FOR
OPEN DISTRIBUTED
ENVIRONMENTS

Examiner: Levitan, Dmitry

Art Unit: 2662

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By:


Jeanette L. Taplin

Mail Stop Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

**PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT ABANDONED
UNINTENTIONALLY UNDER 37 CFR 1.137(b)**

Dear Sir:

1. Applicant petitions for the revival of the above-identified application.
2. This application became abandoned on November 19, 2003.
3. This application became abandoned because the failure to prosecute was an unintentional delay. The entire delay in filing the required reply from the due date until the filing of this petition was unintentional 37 CFR 1.137(b) (3).
4. A response to the Office Action of August 18, 2003 is attached.
5. The application status is other than a small entity.
6. Please charge Deposit Account No. 19-2179. in the amount of \$1500.00.
Please charge any additional fees or credit any overpayments to Deposit

Docket No.: 2000 P 07658 US
App. No.: 09/586,557
Petition

Account No. 19-2179. A duplicate of this Petition is attached for
accounting purposes only.

Date: 1 Aug 05

Respectfully submitted,

By: 

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Attorney for Applicant
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

AUG 01 2005

In re Application of: Skrzynski

Serial No: 09/586,557
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For: HIERARCHICAL DEPENDABILITY
FOR OPEN DISTRIBUTED
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Examiner: Levitan, Dmitry

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Jeanette L. Taplin

RESPONSE TO OFFICE ACTION OF AUGUST 18, 2003

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Office Action bearing a mailing date of August 18, 2003,
hereinafter, "the Office Action", Applicants respectfully submit the following amendment
and remarks. This Response is accompanied by a Petition to Revive.

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims which begins on page
5 of this paper.

Remarks begin on page 8 of this paper.

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Amendments to the Specification:

Please replace the paragraph beginning on line 13 of page 1 with the following amended paragraph:

This application is related to commonly-assigned U.S. Application Serial No. [[]] 09/586,245, filed on even date herewith, by Mark Skryznski and Huy Ton, issued on February 10, 2004 as U.S. Patent 6,691,302, and entitled "Interfacing a Service Component to a Native API," which is incorporated herein by reference.

Please replace the paragraph beginning on line 18 of page 4 with the following amended paragraph:

In particular, specific embodiments are discussed further below. Referring to FIG. 1, a packet switched network 10 (e.g. a HiNet™ RC 3000 ToL system, which is available from Siemens Information and Communication Networks, Inc.) includes client terminals 12, 14, a multi-point control unit 16, a gateway 18, a gatekeeper 20 and a server 22. Each of the systems 12-22 is connected to a local area network (LAN) 24. Data, voice and video information may be transmitted over network 10 in accordance with connection-oriented network protocols (e.g., Transmission Control Protocol/Internet Protocol (TCP/IP)) or connectionless protocols (e.g., Ethernet, Internetwork Packet Exchange (IPX), and User Datagram Protocol (UDP)). Packet switched network 10 preferably operates in compliance with international standards for multimedia call control and application sharing (e.g., Session Initiation Protocol (SIP) [[SIP]] or H.323 for call control and T.128 for application sharing).

Please replace the paragraph beginning on line 10 of page 5 extending to page 6 with the following amended paragraph:

As shown in FIG. 2, network 10 includes a distributed dependability system that, according to a specific embodiment of the invention, may be represented as a hierarchical arrangement of nodes. One or more nodes may be contained in each of the physical systems 12-22 of network 10. The dependability system monitors the status of one or more components at each of a several different hierarchical levels 30,

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32 and 34 of network 10. At network level 30, for example, the dependability system receives status information from system level 32, determines the state of "health" of the overall network 10 and takes corrective action (if necessary) based upon a set of programmed network level policies (e.g., policies relating to load sharing and system availability policies). At system level 32, the dependability system receives status information from each system component, determines the state of health of the assigned system and responds to that determination based upon a set of policies appropriate for the assigned system. Each system of network 10 may be stratified further into a component level 34, which corresponds to a logical hierarchy of system hardware, software and firmware resources. For example, gatekeeper 20 [[18]] may include a system level fault analyzer object for determining the state of health of the gatekeeper system and one or more component level fault analyzers for other components (e.g., a central processing unit (CPU), a standby CPU, an input/output (I/O) card, and one or more software components) operating inside the gatekeeper system. Many of the nodes of network 10 and many of the connections between the nodes may be duplicated. Such redundancy would improve the reliability and fault tolerance of each system and the dependability of the overall network.

Please replace the paragraph beginning on line 18 of page 6 with the following amended paragraph:

Referring to FIG. 3, according to some specific embodiments, each node of the dependability system includes a fault analyzer object 40. Fault analyzer object 40 receives status information 42 relating to the availability of one or more objects (e.g., component objects or fault analyzer objects, or both) for which fault analyzer object 40 has responsibility. Fault analyzer object 40 analyzes this information 42 and, based upon a set of programmable policies 44, issues one or more component object control instructions 46 for the objects assigned to fault analyzer object 40, and issues one or more fault analyzer object control instructions 47 for lower-level fault analyzer objects (if any) shown in FIG. 4. For example, if the current state of a critical component indicates that the component is hung, fault analyzer object 40 may issue component object control instructions to deactivate the hung component and to activate a standby

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dormant component with similar functionality. Fault analyzer object 40 also may issue one or more status reports 48 (e.g., error or warning messages) for an assigned higher-level fault analyzer object.

Please replace the paragraph beginning on line 27 of page 8 extending to page 9 with the following amended paragraph:

In one embodiment, the dependability system is operable under the Windows NT operating system and is implemented by a plurality of Windows NT services written in a variety of different programming languages. The different service modules may interface with the native Windows NT operating system through a generic interface that is described in commonly-assigned U.S. Application Serial No. [_____] 09/586,245, filed on even date herewith, by Mark Skrzynski and Huy Ton, issued on February 10, 2004 as U.S. Patent 6,691,302, and entitled "Interfacing a Service Component to a Native API," which is incorporated herein by reference.

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A dependability system, comprising a hierarchical arrangement of two or more nodes each having a fault analyzer object programmed to respond to status information relating to an associated system of one or more objects based upon a respective set of policies designed to improve object availability, wherein a first fault analyzer object is configured to report object status information to a second fault analyzer object, the first fault analyzer object being configured to register with the second fault analyzer object.

2. (Canceled)

3. (Canceled)

4. (Original) The system of claim 1, wherein a fault analyzer object is assigned responsibility for one or more component objects.

5. (Original) The system of claim 4, wherein the component objects correspond to software applications.

6. (Original) The system of claim 4, further comprising a component interface configured to connect the fault analyzer object to the one or more component objects.

7. (Currently Amended) A dependability system, comprising a hierarchical arrangement of two or more nodes each having a fault analyzer object programmed to respond to status information relating to an associated system of one or more objects based upon a respective set of policies designed to improve object availability and a component interface configured to connect the fault analyzer object to the one or more

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component objects. ~~The system of claim 6~~, wherein the fault analyzer object is configured to issue to the component interface object control instructions for changing the operational state of one or more of the component objects.

8. (Original) The system of claim 1, wherein each fault analyzer object is configured to determine the health of the assigned system.

9. (Currently Amended) A dependability system, comprising a hierarchical arrangement of two or more nodes each having a fault analyzer object programmed to respond to status information relating to an associated system of one or more objects based upon a respective set of policies designed to improve object availability, wherein each fault analyzer object is configured to determine the health of the assigned system and ~~The system of claim 8~~, wherein each fault analyzer includes logic in the form of a dynamic linked library for determining the health of the assigned system.

10. (Original) The system of claim 9, wherein each dynamic linked library is dynamically replaceable.

11. (Original) The system of claim 1, wherein a fault analyzer object includes a state machine.

12. (Currently Amended) A dependability system, comprising a hierarchical arrangement of two or more nodes each having a fault analyzer object programmed to respond to status information relating to an associated system of one or more objects based upon a respective set of policies designed to improve object availability, wherein a fault analyzer object includes a state machine, ~~The system of claim 11~~, wherein the state machine being ~~being~~ [[is]] dynamically replaceable.

13. (Currently Amended) The system of claim 12 ~~[[11]]~~, wherein the state machine is event driven.

14. (Currently Amended) The system of claim 12 ~~[[11]]~~, wherein the state machine automatically changes state.

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15. (Canceled)
16. (Original) The system of claim 1, wherein the nodes are implemented on a single network system.
17. (Original) The system of claim 1, wherein the nodes are implemented on separate systems of a packet switched network.
18. (Original) The system of claim 1, wherein each fault analyzer object is implemented in software.
19. (Original) A telephony system, comprising:
 - a packet switched network;
 - a gatekeeper coupled to the packet switched network;
 - a server coupled to the packet switched network and configured to process telephone calls over the packet switched network; and
 - a dependability system comprising a hierarchical arrangement of two or more nodes each having a fault analyzer object programmed to respond to received status information relating to an assigned system of one or more objects of the telephony system based upon a set of policies designed to improve object availability.
20. (Canceled)
21. (Canceled)
22. (Canceled)

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REMARKS

Claims 1, 4-14 and 16-19 are pending in the Application. Claims 1, 7, 9 and 12-14 have been amended. Claims 2, 3, 15 and 20-22 have been canceled without prejudice.

Drawing Objections

The Patent Office stated the drawings were informal.

Applicant respectfully submits the drawings are formal and in compliance.

The Patent Office objected to the drawings for failing to comply with 37 CFR 1.84(p)(5) for failure to include reference signs mentioned in the description and failure to mention reference signs not mentioned in the description.

Regarding object control instructions 47 on page 6, this is shown in FIG. 4. The specification has been amended to reflect the depiction of reference sign 47 in FIG. 4.

Regarding object control instructions received from an assigned higher-level fault analyzer object 66 shown in FIG. 4, a description of reference sign 66 is located on page 7, lines 27-31. Consequently, Applicant respectfully submits that the drawings and specification are in compliance with 37 CFR 1.84(p)(5).

Specification Objections

The Patent Office objected to the disclosure for informalities.

The specification has been amended to correct informalities.

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Claim Rejections - 35 U.S.C. § 112

The Patent office rejected claim 15 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant respectfully traverses, however, Claim 15 has been canceled without prejudice and the rejection is now moot.

Claim Rejections - 35 U.S.C. § 102

The Patent Office rejected claims 1, 2, 4-6, 8, 11, 13, 14, 16-18 and 20-22 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,768,501 by Lewis, ("Lewis").

Allowable Subject Matter

The Patent Office stated claim 19 was allowed. The Patent Office further stated claims 3, 7, 9, 10 and 12 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant respectfully traverses the rejection of claims 1, 2, 4-6, 8, 11, 13, 14, 16-18 and 20-22 under 35 U.S.C. § 102(b) as being anticipated by Lewis. However, claim 1 has been amended to include the limitations of claim 3, claim 7 has been amended into independent form, claim 9 has been amended into independent form and claim 12 has been amended into independent form. Consequently, claims 1, 4-14 and 16-19 are believed allowable.

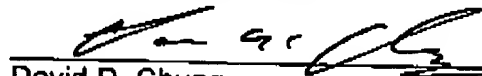
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Conclusion

Applicants respectfully submit that all claims are allowable, and it is respectfully requested that the entire application now be passed to formal allowance.

Dated: 1 Aug. 05

Respectfully Submitted,



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